~~Claims~~

WHAT IS CLAIMED IS:

1. - 24. (canceled)

25. (new) A method for qualitative or quantitative detection of a nucleic acid in a sample, said method comprising the steps of:

amplifying a nucleic acid to be detected in a sample in the presence of at least one detection probe that by a reversible binding action binds reversibly to a binding region of said nucleic acid to be detected and enables a detection of said nucleic acid to be detected based on said reversible binding action;

providing a control nucleic acid in said sample and amplifying said control nucleic acid in said sample, wherein said control nucleic acid has a binding region that also binds said at least one detection probe and wherein said binding region of said control nucleic acid has a nucleotide sequence having at least one deviation in comparison to said nucleotide sequence of said binding region of said nucleic acid to be detected;

wherein a first product of said nucleic acid to be detected and of said at least one detection probe and a second product of said control nucleic acid and of said at least one detection probe have different melting points and a temperature difference of said melting points is sufficiently large to analytically differentiate said first and second products from one another for carrying out said detection.

26. (new) The method according to claim 25, wherein said melting point of said second product is lower than said melting point of said first product.

27. (new) The method according to claim 25, wherein said temperature difference is at least 5 °C.

28. (new) The method according to claim 25, wherein said control nucleic acid and said nucleic acid to be detected are amplified with identical primers.

29. (new) The method according to claim 25, wherein said nucleic acid to be detected and said control nucleic acid are amplified by polymerase chain reaction.

30. (new) The method according to claim 25, wherein two or more of said nucleic acid to be detected and two or more of said control nucleic acid are present in said same sample and wherein for each one of said nucleic acids to be detected one of said control

nucleic acids is present.

31. (new) The method according to claim 25, wherein said nucleic acid to be detected is a DNA or an RNA derived in particular from a pathogen.

32. (new) The method according to claim 25, wherein said detection of said nucleic acid to be detected is carried out in real-time.

33. (new) The method according to claim 32, wherein said detection is carried out at a temperature that is 2°C to 10 °C below said melting temperature of said first product.

34. (new) The method according to claim 33, wherein said melting point of said second product is so low that said second product is negligible or not at all present in said detection.

35. (new) The method according to claim 25, wherein only one of said at least one detection probe is used and said detection of said nucleic acid to be detected is based on a melting curve of said nucleic acid to be detected in the presence of said at least one detection probe, wherein a melting curve of said control nucleic acid in the presence of said at least one detection probe serves as an internal control of proper amplification.

36. (new) The method according to claim 25, wherein two of said at least one detection probe are used, wherein a first one of said two detection probes carries a reporter group and a second one of said two detection probes changes observable properties of said reporter group when in a position in the vicinity of said reporter group.

37. (new) The method according to claim 25, wherein said at least one detection probe carries a reporter group and a second group that changes observable properties of said reporter group when in a position in the vicinity of said reporter group, wherein said reporter group and said second group are positioned so close to one another that said observable properties of said reporter group are changed either only during binding of said at least one detection probe to said nucleic acid to be detected or only in a non-bonded state of said at least one detection probe.

38. (new) The method according to claim 25, wherein said nucleotide sequence of said control nucleic acid in said binding region for said at least one detection probe has at least one modification relative to said nucleic acid to be detected.

39. (new) The method according to claim 38, wherein said at least one modification is an exchange of a G or a C.

40. (new) The method according to claim 25, wherein said nucleotide sequence of said control nucleic acid in said binding region for said at least one detection probe has at least two modifications relative to said nucleic acid to be detected.

41. (new) The method according to claim 41, wherein said nucleotide sequence has three to five of said at least two modifications.

42. (new) The method according to claim 25, wherein a sequence region of said control nucleic acid that can neither hybridize with said at least one detection probe nor optionally with a primer is shortened.

43. (new) The method according to claim 25, wherein a sequence region of said control nucleic acid that can neither hybridize with a detection probe nor optionally with a primer has significant deviations relative to said nucleic acid to be detected.

44. (new) The method according to claim 43, wherein said modifications are distributed approximately uniformly across said binding region for said at least one detection probe.

45. (new) A kit comprising:

a nucleic acid suitable particularly as a control nucleic acid for a negative control in a method for detecting a nucleic acid to be detected;

a probe system comprising at least one probe comprising an oligonucleotide that binds to said nucleic acid suitable particularly as a control nucleic acid;

wherein said at least one probe has a reporter group with an observable property that changes as a function of whether said at least one probe is bonded or not to said nucleic acid suitable particularly as a control nucleic acid;

wherein said nucleic acid suitable particularly as a control nucleic acid in at least one region where said oligonucleotide of said at least one probe binds has at least one mismatch relative to said oligonucleotide.

46. (new) The kit according to claim 45, wherein said nucleic acid particularly suitable as a control nucleic acid has at least two of said at least one mismatch.

47. (new) The kit according to claim 46, wherein several of said at least one

mismatch are uniformly distributed across said at least one binding region for said oligonucleotide.